

## CHAPTER 1. GENERAL INFORMATION

### SECTION 1. GENERAL

**1. PURPOSE.** This handbook provides guidance for Airworthiness aviation safety inspectors (ASI) responsible for the following:

*A. Certification, technical administration, and surveillance of individuals, facilities, and organizations in accordance with (IAW) Title 14 of the Code of Federal Regulations (14 CFR) parts 65, 91, 121, 125, 129, 133, 135, 137, 141, 145, 147, 149, and 183.*

*B. The investigation and/or response to aircraft accidents and incidents, accident prevention activities, enforcement activities, and miscellaneous tasks not related to specific regulations.*

**3. DISTRIBUTION.** This order is distributed to addresses on special distribution list ZFS-830.

**5. DEFINITIONS.** The following definitions are from 14 CFR part 1, § 1.1 or other appropriate sources.

*A. Aircraft.* A device that is used or intended to be used for flight in the air.

*B. Aircraft Engine.* An engine that is used or intended to be used for propelling aircraft. It includes turbo-superchargers, appurtenances, and accessories necessary for its functioning, but does not include propellers.

*C. Airworthy.* Two conditions must be met before an aircraft can be considered “airworthy”:

- The aircraft must conform to its type certificate (TC); that is, when the aircraft configuration and the components installed are consistent with the drawing, specifications, and other data that are part of the TC, and include any supplemental TC and field-approved alterations incorporated into the aircraft.
- The aircraft must be in condition for safe operation; this refers to the condition of the aircraft relative to wear and deterioration.

*D. Appliance.* Any instrument, mechanism, equipment, part, apparatus, appurtenance, or accessory, including communications equipment, that is used or intended to be used in operating or controlling an aircraft in flight, is installed in or attached to the aircraft, and is not part of an airframe, engine, or propeller.

*E. Applicable.* Capable or suitable for being applied.

*F. Appropriate.* Especially suitable or compatible; fitting.

*G. Available.* Accessible, obtainable.

*H. Current.* The term “current,” as it relates to the Airplane Flight Manual (AFM) and Rotorcraft Flight Manual (RFM), has two meanings, depending on whether one is referring to aircraft certification or to ongoing operations conducted under part 91, 121, 125, or 135. In an October 8, 1998 legal interpretation from the Assistant Chief Counsel, Regulations Division, AGC-200, the term current is defined as follows:

*(1) Certification Rules, Part 21.* The definition of current, as it pertains to aircraft certification and as used in the phrase “current approved Airplane or Rotorcraft Flight Manual” in part 21, § 21.5(a), means belonging to the present time. Once the “current” AFM or RFM is made available to the owner at the time of delivery of the aircraft, the obligation under § 21.5 is met, fulfilled, and complete.

*(2) Operating Rules, Parts 91, 121, 125, and 135.* The definition of current, as it pertains to operations under these parts and as used in the phrase “current approved flight manual” in part 121, § 121.141(a), has been interpreted by the Office of the Chief Counsel (AGC) differently from the interpretation of current for aircraft certification procedures. In contrast to § 21.5(a), AGC has determined that the word current in § 121.141(a) is ongoing and those persons certified to operate under

part 121 have an ongoing obligation to keep a current approved AFM.

*I. Data.* The drawings and specifications necessary to define the configuration and design features of the repair or alteration. These drawings and specifications include information on weight, balance, operating limitations, flight characteristics, dimensions, materials, and processes that are necessary to define the structural strength of the repair or alteration.

*J. Directive Information.* Information that is regulatory in nature and uses terms such as “shall” and “must.” These terms mean that the actions are MANDATORY. “Shall not” or “must not” means that the actions are PROHIBITED. The use of these terms allows the ASI no flexibility and means their direction must be followed, unless otherwise authorized by headquarters division managers.

*K. Field Approval.* One of the means used by the FAA to approve technical data used to make a major repair or major alteration. It is an approval by the Administrator, through an authorized Airworthiness ASI, of technical data used to make a major repair or major alteration. Technical data, so approved, becomes “technical data approved by the Administrator.” This type of approval may be accomplished in one of the following two ways:

(1) Examination of technical data for use on only one aircraft; or

(2) Examination of technical data by physical inspection, demonstration, testing, etc., for use on only one aircraft.

*L. Guidance Information.* Information that is advisory in nature and contains terms such as “should” or “may.” These terms indicate actions that are desirable, permissible, or not mandatory, and allow flexibility on the part of the ASI.

*M. Handbook.* The handbook is a directive designed to provide essential overall instructions, guidance, and requirements for operations,

airworthiness, and manufacturing field personnel to accomplish their job functions.

*N. Major Alteration.* An alteration not listed in the aircraft, aircraft engine, or propeller specifications, that:

(1) Might appreciably affect weight, balance, structural strength, performance, powerplant operation, flight characteristics, or other qualities affecting airworthiness; or

(2) Is not done according to accepted practices or cannot be done by elementary operations.

*O. Major Repair.* A repair that fits one or more of the following:

(1) Might appreciably affect airworthiness by changing weight, balance, structural strength, performance, powerplant operation, or flight characteristics if improperly done; or

(2) Is not done according to accepted practices or cannot be done by elementary operations.

*P. Minor Alteration.* Any alteration that is not classified as a major alteration.

*Q. Minor Repair.* Any repair that is not classified as a major repair.

*R. Propeller.* A device for propelling an aircraft that has blades on an engine-driven shaft which, when rotated, produces by its action on the air, a thrust approximately perpendicular to its plane of rotation. It includes control components normally supplied by its manufacturer, but does not include main and auxiliary rotors or rotating airfoils of engines.

*S. Substantiating.* To support and verify with proof or evidence. To give material form. To make firm or solid. To give substance or reality.

## SECTION 2. HANDBOOK BACKGROUND INFORMATION

**1. HANDBOOK FORMAT AND USE.** This handbook has been designed to serve as a multipurpose document that will meet the needs of newly-hired ASIs as well as experienced principal inspectors (PI). Information currently found in many separate documents has been compiled to make the handbook as comprehensive as possible. The general layout of the handbook is as follows:

- Volume 1 contains generic and general information that an ASI should know before performing the job tasks in Volumes 2 and 3
- Volume 2 (certification) and Volume 3 (surveillance) contain all of the job tasks accomplished by Airworthiness ASIs
- Volume 4 contains reference material and additional guidance in areas that are not a specific job task

*A. Task Chapters.* Each chapter in Volumes 2 and 3 represents a separate task that can be accomplished by an ASI. Tasks were initially identified from the 1985 Job Task Analysis (JTA) and are revised as ASI/PI responsibilities, regulations, and the safety needs of the aviation community change. Except for introductory chapters, each chapter is divided into two sections, Background and Procedures.

*(1) Section 1, Background.* This section explains why the task is done, includes any historical considerations, and provides current FAA policy. Section 1 will usually consist of the following format:

*(a) Paragraph 1, "Program Tracking and Reporting Subsystem (PTRS) Activity Codes."* This paragraph will always give the PTRS codes (when applicable) for that task for each involved Airworthiness specialty.

*(b) Paragraph 3, "Objective."* This paragraph will state the general objective of that particular task. This can include the specific 14 CFR part(s) that the chapter applies to, the specific regulatory basis for the chapter, and a brief explanation of the ASI's role.

**NOTE: If any particular task has definitions of terms not found in other sections of the regulations, the**

**definitions will be included in Paragraph 5, "Definitions."**

*(2) Section 2, Procedures.* Section 2 will usually consist of the following format:

*(a) Paragraph 1, "Prerequisites and Coordination Requirements."* This paragraph is broken down into two subparagraphs and will consist of the following information:

*i. Subparagraph A, "Prerequisites,"* gives the specific 14 CFR knowledge, course requirements, inspector authorizations, and familiarity requirements necessary for performing the task.

*ii. Subparagraph B, "Coordination Requirements,"* gives a list of the people, organizations, specialties, agencies, etc., that might require coordination with the ASI performing the task.

*(b) Paragraph 3, "References, Forms, and Job Aids."* This paragraph is broken down into three subparagraphs and will consist of the following information:

*i. Subparagraph A, "References,"* gives a list of materials that will assist the ASI in performing that chapter's task. This can include additional 14 CFR parts to those listed in "Prerequisites," other CFR parts, Advisory Circulars, operators' manuals, manufacturers' manuals, Air Transportation Oversight System (ATOS) elements, and so forth.

*ii. Subparagraph B, "Forms,"* gives a list of the specific FAA/DOT forms that the ASI will need to perform the task.

*iii. Subparagraph C, "Job Aids,"* can include a list of the figures that are provided at the end of the chapter. These figures can include a list of guidelines, examples of official forms, or can be an unofficial form that can be copied and used to fill a need not covered by an official form. An example is the five-day grounding job aid found in vol. 3, ch. 6.

*(c) Paragraph 5, "Procedures."* This paragraph contains the step-by-step outline of how to perform the task. All steps in the task are included; however, some steps may refer the ASI to another task/chapter. When that occurs, the

referenced task must be performed before resuming the procedures in the original task. Performance criteria are either included with the step or the location of the objective criteria is identified (practical test standards, 14 CFR section, etc.).

*(d) Paragraph 7, "Task Outcomes."*

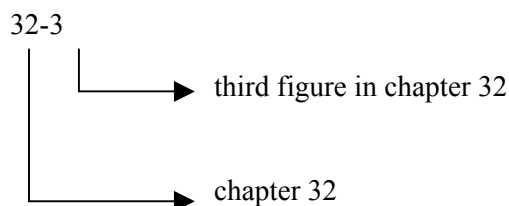
This paragraph contains the final steps of the job task and tells what the end result of the task should be.

*(e) Paragraph 9, "Future Activities."*

This paragraph lists any follow-up activities that should be accomplished as a result of the task just performed.

**B. Paragraph Numbering.** Paragraphs are numbered consecutively starting at number 1 in each section of each chapter of each volume. Only odd numbers are used; 1, 3, 5, and so on, to enable greater ease of revision. For example, new information in future updates can be included as paragraphs 2, 4, or 6.

**C. Figure and Table Numbering.** The numbering of figures and tables enables the ASI to note the chapter to which the figure or table refers. For example, Figure 32-3 is interpreted as follows:

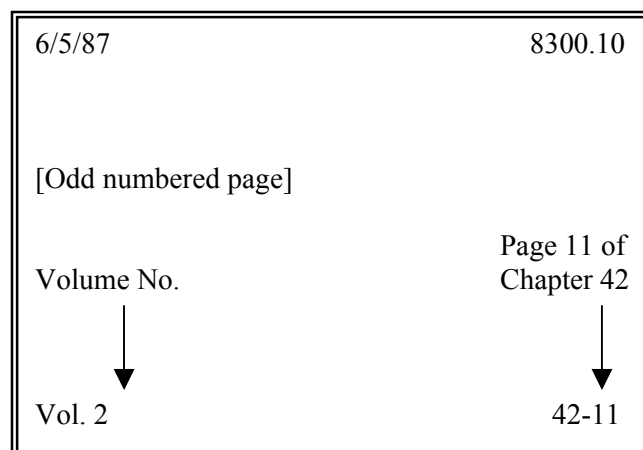


**D. Chapter Pagination.** The pagination of each chapter is designed to simplify the addition of revisions, the replacement of lost or misplaced pages, and the location of subject areas.

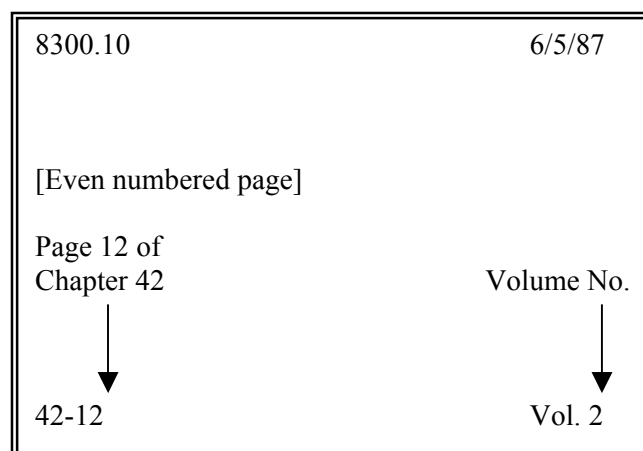
(1) Each chapter begins with page 1 and is identified with the chapter number; i.e., 131-1 is chapter 131, page 1.

(2) On each page the top margin (header) contains the handbook number and the date the page was issued; position (either right or left) is reversed on odd and even pages. The bottom margin (footer) contains the volume number and the page number of the chapter (again, reversed on odd and even pages). For example:

**FIGURE 1-1. ODD PAGE HEADERS/FOOTERS**



**FIGURE 1-2. EVEN PAGE HEADERS/FOOTERS**



**E. Reserved Pages, Chapters, and Paragraphs.** For the purposes of this handbook, reserved pages, chapters, and paragraphs are present to preserve the sequence of codification and allow for revisions without renumbering the succeeding portions.

**F. Appendixes.** There are four main appendixes to the handbook.

(1) Appendix 1, Acronyms and Abbreviations, contains commonly-used acronyms and abbreviations in Order 8300.10.

(2) Appendix 2, Inspector Feedback, outlines the procedures for recommending a change and/or correction to the information in the handbook. An inspector feedback sheet is provided for this purpose.

(3) Appendix 3, Airworthiness Handbook Bulletins (HBAWs), shows the Web site address where all current handbook bulletins are located.

(4) Appendix 4, Airworthiness Information Bulletins (FSAWs), shows the Web site address where all current information bulletins are located.

**3. AUTHORITY TO CHANGE THIS DOCUMENT.** The Flight Standards Service is

responsible for all changes to this FAA order and its appendixes. This order will be kept current by issuing changes as the need occurs. Regional supplements to this order are prohibited. Recommendations for changes or corrections should be submitted to the Aircraft Maintenance Division, AFS-300, in accordance with the procedures outlined in Appendix 2.